
IN THE SUPREME COURT

STATE OF NORTH DAKOTA

Robert E. Hanson, Appellant

v.

The Industrial Commission of North Dakota, Respondent and Appellee and Petro-Hunt Corporation,
Intervenor and Appellee

Civil No. 900254

Appeal from the District Court for Divide County, Northwest Judicial District, the Honorable William M. Beede, Judge.

AFFIRMED.

Opinion of the Court by Erickstad, Chief Justice.

Zuger, Kirmis, Bolinske & Smith, P.O. Box 1695, Bismarck, ND 58502-1695, for appellant; argued by Charles T. Edin. Appearance by Robert E. Hanson.

Charles M. Carvell (argued), Assistant Attorney General, Attorney General's Office, 900 East Boulevard Avenue, Bismarck, ND 58505, for respondent and appellee.

Fleck, Mather & Strutz, P.O. Box 2798, Bismarck, ND 58502-2798, for intervenor and appellee; argued by John W. Morrison.

Hanson v. Industrial Commission of North Dakota

Civil No. 900254

Erickstad, Chief Justice.

Robert E. Hanson has appealed from a district court judgment affirming the Industrial Commission's denial of his application to dispose of produced saltwater from the State F-24 well by injecting it into the Madison formation through the State F-22A well. We affirm.

Hanson is a working interest owner in the State F-24 well in the NE1/4 NE1/4 of Section 36, Township 160 North, Range 95 West, and in the State F-22A well in the NE1/4 SE1/4 of Section 36. The State F-24 well produces about 13 barrels of oil and 165 barrels of water per day from the Madison formation. The State F-22A well is an abandoned producer. From 1971 through 1980, the State F-22A well was used as an injection well in the now terminated North Tioga-Madison Unit.

Imperial oil of North Dakota, Inc., another working interest owner in the State F-24 and F-22A wells, has obtained a permit to dispose of produced saltwater into the separate, saltwater bearing Dakota formation through the State F-22A well.¹ Hanson applied to the Industrial Commission for permission to dispose of up

to 200 barrels of produced saltwater per day from the State F-24 well by injecting it into the oil bearing Madison formation through the State F-22A well, which would be less expensive than disposal in the Dakota formation. Petro-Hunt Corporation (Petro-Hunt), the operator of the F-20 well (also known as the Ray O. Hanson #1 well), which produces from the Madison formation and is located about 2660 feet south of the State F-22A well, opposed Hanson's request.

In denying Hanson's application, the Commission made the following findings and conclusions:

"(8) That Petro-Hunt opposes applicant's request to utilize the Madison Pool in the State F-22A well as a disposal zone for produced waters. Petro-Hunt presented evidence which indicates that production from its Ray O. Hanson #1 well is adversely affected by injection of water into the State F-22A well.

"(9) That since water injection into the State F-22A well ceased in 1980, the daily oil production from the Ray O. Hanson #1 well . . . has steadily increased. The percentage of water production from the well decreased from 1980 through 1985, and is still below the 1980 water production level. This indicates that production from the Ray O. Hanson #1 well is influenced by the injection of water into the State F-22A well.

"(10) That Dr. Mohan Kelkar, testifying on behalf of Robert E. Hanson, stated if a reservoir is affected by a bottom water drive, water cut will increase rapidly at the beginning of a well's life but will soon stabilize. He also stated that production from the Ray O. Hanson #1 well clearly indicates that the performance of the well is controlled by a bottom water drive, although the State F-24 well was 'flooded out' as a result of the waterflood.

"(11) That early in the well life, water cut increased very slowly in the Ray O. Hanson #1 well and in the State F-24 well, indicating the production from the wells was not being affected by a bottom water drive.

"(12) That the plots of water cut versus time for the Ray O. Hanson #1 and State F-24 wells appear virtually identical, with low water cuts prior to injection and rapidly increasing water cuts subsequent to the commencement of injection, indicating a response to fluid injections into the North Tioga-Madison Pool.

"(16) That injection of fluids into an oil and gas reservoir causing the movement of reservoir fluids across property lines, in the absence of unitization, will cause or tend to cause a violation of correlative rights.

"(17) That applicant failed to submit credible evidence to indicate that the proposed injection will not cause movement of reservoir fluids across property lines in the North Tioga-Madison Pool. Evidence submitted indicates that injection into the pool will cause the movement of fluids through the reservoir.

"(18) That injection of water into the North Tioga-Madison Pool through the State F-22A well may result in the by-passing of oil and gas due to fingering effect, cause oil and gas to move across property lines, and cause premature watering out of off-set wells.

"(19) That in order to prevent waste and protect correlative rights, this application should be denied."

Hanson appealed to the district court, which affirmed the Commission's decision. on appeal to this court, Hanson contends: (1) The evidence shows that water injected into the Madison formation through the State F-22A well will not harm the F-20 well and findings 9, 11, 12 and 17 are not supported by substantial evidence; (2) The Commission's order violates § 38-08-01, N.D.C.C., because it hinders, rather than promotes, oil development; (3) The Commission's conclusions and decision are not supported by the findings of fact because the Commission failed to make the minimum findings of fact necessary to determine the extent of the correlative rights of the parties, the order violates Hanson's correlative rights and results in waste, and conclusions 16 and 18 are not sustained by the law and by substantial and credible evidence; and (4) The Commission's rules of procedure have not afforded him a fair hearing because of its arbitrary and capricious disregard of Dr. Kelkar's opinion.

The usual standard of review for administrative agency decisions under § 28-32-19, N.D.C.C., which requires that an agency's findings of fact be supported by a preponderance of the evidence, is not applicable in this case. Amoco Production Co. v. North Dakota Industrial Commission, 307 N.W.2d 839 (N.D. 1981). Section 38-08-14(4), N.D.C.C., provides the standard of judicial review for Industrial Commission orders: "Orders of the commission must be sustained if the commission has regularly pursued its authority and its findings and conclusions are sustained by the law and by substantial and credible evidence." As we noted in Amoco Production Co., supra, 307 N.W.2d at 842: "The 'substantial evidence' test was the test employed in reviewing all administrative agency orders prior to 1977 when the Legislature amended Section 28-32-19 adopting the 'preponderance of the evidence' test." See also Geo. E. Haggart, Inc. v. North Dakota Workmen's Compensation Bureau, 171 N.W.2d 104 (N.D. 1969), holding that the substantial evidence test was the appropriate standard of review for administrative agency findings of fact. Thus, prior decisions applying the substantial evidence rule were held to be applicable to the Industrial Commission. Amoco Production Co., supra.

In Application of Bank of Rhame, 231 N.W.2d 801, 811 (N.D. 1975), this court adopted the United States Supreme Court's definition and explanation of "substantial evidence" in Consolo v. Federal Maritime Comm'n, 383 U.S. 607, 619-620, 86 S.Ct. 1018, 1026, 16 L.Ed.2d 131, 140-141 (1966):

"We have defined 'substantial evidence' as 'such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.' . . . This is something less than the weight of the evidence, and the possibility of drawing two inconsistent conclusions from the evidence does not prevent an administrative agency's finding from being supported by substantial evidence." (Citations omitted.)

We explained judicial review under the "preponderance of the evidence" standard in Power Fuels, Inc. v. Elkin, 283 N.W.2d 214, 220 (N.D. 1979):

"In construing the 'preponderance of the evidence' standard to permit us to apply the weight-of-the-evidence test to the factual findings of an administrative agency, we do not make independent findings of fact or substitute our judgment for that of the agency. We determine only whether a reasoning mind reasonably could have determined that the factual conclusions reached were proved by the weight of the evidence from the entire record."

Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. It is something less than the greater weight of the evidence and, in other words, is something less than a preponderance of the evidence. Thus, we are required to accord greater deference to Industrial Commission findings of fact than we ordinarily accord to other administrative agencies' findings of fact.

Ordinarily, determinations of administrative bodies are presumed to be correct. F.O.E. Aerie 2337 v. North Dakota Workers Compensation Bureau, 464 N.W.2d 197 (N.D. 1990); Perman v. North Dakota Workers Compensation Bureau 458 N.W.2d 484 (N.D. 1990); Barnes County v. Garrison Diversion Conservancy District, 312 N.W.2d 20 (N.D. 1981). If the subject matter of a question before an administrative agency is of a highly technical nature, the expertise of the agency is entitled to respect and appreciable deference. E.g., Matter of Stone Creek Channel Improvements, 424 N.W.2d 894 (N.D. 1988); Montana-Dakota Utilities Co. v. Public Service Comm'n, 413 N.W.2d 308 (N.D. 1987); Triangle Oilfield Services, Inc. v. Hagen, 373 N.W.2d 413 (N.D. 1985).

In Amoco Production Co. v. North Dakota Indus. Comm'n, *supra*, 307 N.W.2d at 842 n.4, we referred to the following definition of "correlative rights" contained in Williams & Meyer, Manual of Oil & Gas Terms (4th ed. 1976):

"" Correlative rights

""[T]he opportunity afforded, so far as it is practicable to do so, to the owner of each property in a pool to produce without waste his just and equitable share of the oil or gas, or both, in the pool; being an amount, so far as can be practically determined, and so far as can practicably be obtained without waste, substantially in the proportion that the quantity of recoverable oil or gas, or both, under such property bears to the total recoverable oil or gas, or both, in the pool, and for such purposes to use his just and equitable share of the reservoir energy.' Nev.Rev.Stat. § 522.020(2). There appear to be two aspects of the doctrine of correlative rights: (1) as a corollary of the rule of capture, each person has a right to produce oil from his land and capture such oil or gas as may be produced from his well, and (2) a right of the landowner to be protected against damage to a common source of supply and a right to a fair and equitable share of the source of supply. . . ."

As we recognized in Hystad v. Industrial Comm'n, 389 N.W.2d 590, 596 (N.D. 1986), "[t]he physical characteristics and reservoir dynamics of the common source of supply necessitate the use of highly technical geological and economic information to determine the extent of correlative rights." As Justice VandeWalle, concurring in Hystad v. Industrial Comm'n, *supra*, at 599, observed, the task of protecting correlative rights "is far from an exact science and the scales may not weigh evenly."

It is against this backdrop of limited judicial review under § 38-08-14(4), N.D.C.C., and the appreciable deference we must accord the Industrial Commission's expertise in the resolution of such highly technical matters as the protection of correlative rights that we review the Commission's decision in this case.

Hanson contends that the evidence shows that water injected into the Madison formation through the F-22A well will not harm the F-20 well and that findings 9, 11, 12 and 17 are not supported by substantial evidence.

Dr. Mohan Kelkar, an associate professor of petroleum engineering, testified as an expert on behalf of Hanson that: (1) in his opinion, injection of 200 barrels of water per day in the F-22A well would not "negatively affect the F-20 well" and would not "have an influence as far as moving fluids across the lease boundaries"; (2) the F-20 well "is south of the permeability trend region and . . . did not respond" to the water flooding program in the now-terminated North Tioga-Madison Unit that was carried on between 1963 and 1980, and that "the water which was injected in F-22A well had no effect, adverse or favorable on the production of well F-20"; (3) the F-20 well "is affected by an underground water aquifer" and "is not affected by the injection of water into the F-22A well"; (4) "since the prior indication is such that the

injection in well F-22 has not affected the oil production in the well F-20, there is no reason to believe that future injections in well F-22A will affect adversely the production from well F-20"; (5) he believes that granting Hanson's application would prevent economic waste and protect correlative rights; and that (6) water injection in the F-22A well when it was part of the North Tioga-Madison unit had no effect on the F-20 well and he does not "see any reason that it will have any adverse effect in the future."

Michael Pickering, a petroleum engineer employed by Petro-Hunt and responsible for Petro-Hunt's properties in the North Tioga-Madison Field, testified as an expert on behalf of Petro-Hunt in opposition to Hanson's application that: (1)

"It appears [from Exhibit 1, a decline curve of production from the F-20] if you look at when the D-22 well was put on injection back in, it looks like early 1963, we show a sharp increase in water cut in 1965 It leveled off during '66 and '67, the water cut did. F-18 went on injection in 1967 and we showed another increase between 1968 and 1969 It stayed somewhat consistent again up through 1971 at which time the F-22A was put on injection and we showed another increase that went from approximately 80% water cut to 90% water cut during 1972-1973;"

(2) since injection ceased in the North Tioga-Madison Field, "from a low point towards the end of 1980 the oil production has increased, the monthly production has increased somewhat steadily through 1988"; (3) in his opinion, if Hanson is allowed to inject water into the Madison formation, "we'll probably see a dropping in the oil production, an increase in the water production" of the F-20 well; (4) "when you get up towards the 90 to 100% water cut change it takes an awful lot of water to make a 1% change in the water cut"; (5) if the increase in oil production "was just strictly due to pump changes you would actually expect it to go up real sharp and stay there or slowly start declining again to return towards the old decline curve"; (6) "the only reason we have more oil coming in is that we have less water coming in"; and that (7) "less water is coming in because the injections have ceased in the unit."

From our review of the record, we conclude that there is such relevant evidence as a reasonable mind might accept as adequate to support the conclusions contained in findings 9, 11, 12, 16, 17 and 18. The possibility of drawing two inconsistent conclusions from the evidence does not prevent the findings from being supported by substantial evidence. We conclude that the Commission's findings of fact are supported by substantial evidence.

Hanson contends that the Commission's order violates § 38-08-01, N.D.C.C., because it hinders, rather than promotes, oil development, and that, unless the order is overturned, his investment of "almost \$200,000.00 in costs to refurbish the State F-24 well" will be lost. Section 38-08-01, N.D.C.C., provides:

"It is hereby declared to be in the public interest to foster, to encourage, and to promote the development, production, and utilization of natural resources of oil and gas in the state in such a manner as will prevent waste; to authorize and to provide for the operation and development of oil and gas properties in such a manner that a greater ultimate recovery of oil and gas be had and that the correlative rights of all owners be fully protected; and to encourage and to authorize cycling, recycling, pressure maintenance, and secondary recovery operations in order that the greatest possible economic recovery of oil and gas be obtained within the state to the end that the landowners, the royalty owners, the producers, and the general public realize and enjoy the greatest possible good from these vital natural resources."

From the evidence in the record and the arguments presented, we are not persuaded that the Commission's

denial of Hanson's request, thus depriving him of the opportunity to dispose of saltwater from the F-24 well as inexpensively as he would like, hinders, rather than promotes oil development overall. According appreciable deference to the Commission's expertise in this highly technical area, we conclude that Hanson has failed to overcome the presumption of correctness with which the Commission's decision is clothed.

Relying on Hystad v. Industrial Comm'n, supra, Hanson contends that the Commission "failed to make minimum findings of fact necessary to determine the extent of correlative rights of the parties sufficient to allow" this court to determine if each party "has been afforded the opportunity to produce without waste, so far as is reasonably practicable, his just and equitable share of the oil in the pool." In Hystad, supra, which involved a deviation from the statutory requirement of spacing units of uniform size and shape for a pool, we said:

"In Larsen v. Oil & Gas Conservation Comm'n, 569 P.2d 87, 92 (Wyo. 1977), the Wyoming Supreme Court recognized the following minimum findings necessary to determine the extent of correlative rights in the context of prescribing the shape of spacing units:

"(1) the amount of recoverable oil in the pool; (2) the amount of recoverable oil under the various tracts; (3) the proportion that #1 bears to #2; and (4) the amount of oil that can be recovered without waste. . . ."

"[T]hese factual questions suggest an appropriate focus for determining a just and equitable share of a common source of supply which is in harmony with the definition of correlative rights. . . . When a deviation from the standard of a uniform size unit is necessary to protect correlative rights, the commission must explain why the deviation is necessary within the context of the right of each owner to a just and equitable share of the common source of supply and the duty to other owners not to damage or take an undue proportion of oil or gas from that common source of supply. . . ."

Id., at 596-597. We found the Commission's findings in that case to be insufficient: "In this instance, the reasons given do not enable us to understand the basis of the Commission's decision and are insufficient to sustain the deviation from uniform size spacing units." Id., at 598.

It is important to recognize that Hystad involved a deviation from the norm of spacing units having a uniform size and shape, thus requiring specific findings elaborating how the deviation protected correlative rights. Here, the Commission's decision is consistent with the norm of not injecting substances into producing formations except, for example, in unit operation of secondary recovery efforts. See, e.g., § 38-08-04, N.D.C.C., providing in part that the Commission has authority:

"1. To require:

"c. The drilling, casing, operation, and plugging of wells in such manner as to prevent . . . the intrusion of water into oil or gas strata, . . .

"2. To regulate:

"a. The drilling, producing, and plugging of wells, the restoration of drilling and production sites, and all other operations for the production of oil or gas.

"d. Operations to increase ultimate recovery such as cycling of gas, the maintenance of pressure, and the introduction of gas, water, or other substances into producing formations.

"e. Disposal of saltwater and oilfield wastes."

See also, §§ 38-08-09 and 38-08-09.3, N.D.C.C., authorizing unit water flooding to increase the ultimate recovery of oil from a common source of supply. A Commission decision consistent with the operational norm of not injecting substances into a producing formation does not require findings as specific as those required by Hystad to explain a deviation from the operational norm of spacing units having a uniform size and shape.

As we noted in Hystad, Supra, 389 N.W.2d at 597: "The findings of an administrative agency are adequate when they enable the reviewing court to understand the basis of the agency's decision." The Commission's findings enable us to understand the basis of its decision. The findings indicate that the Commission did not agree with Hanson's theory that the F-20 well was controlled by a bottom water drive and that its oil production would not be adversely affected by the injection of saltwater into the Madison formation through the F-22A well and did agree with Petro-Hunt's theory that the F-20 well is not controlled by a bottom water drive, but was influenced by the injection of water into the F-22A well and would be adversely affected by the injection of saltwater into the Madison formation through the F-22A well. We conclude that the Commission's findings are adequate.

Hanson contends that the Commission's order violates his correlative rights and results in waste. States regulate the rate and volume of oil production to prevent waste, which has both physical and economic aspects, and to protect correlative rights. 1 B. Kramer & P. Martin, The Law of Pooling and Unitization § 5.01[1] (3rd ed. 1990).

"[W]aste prevention measures restrict the right to produce and share in production from one's property under the rule of capture; unless the state affords some compensation or protection to the rights restricted, the state will be taking property without due process of law. If the state does not protect correlative rights, then it must allow the drilling and production practices that will result in waste."

Id., § 5.01[1].

"The correlative right is having the opportunity to produce, not having a guaranteed share of production. Once the state has afforded that opportunity, it has protected the correlative rights of a party; it need not ensure a share of production to a party."

Id., § 5.01[4].

"In matters involving the various forms of conservation regulation, when drilling or production is prevented or controlled, an effort is made to protect correlative rights by dividing fairly, among the various owners, production from a common source of supply. This involves consideration of the benefits that could have been expected under the operation of the law of capture."

1 E. Kuntz, Oil and Gas § 4.1, at 91 (1962).

Hanson has shown that he could produce oil more profitably from the F-24 well if he could dispose of the saltwater it produces by injecting it into the Madison formation through the F-22A well. Hanson has not, however, shown that the Commission's denial of his request has deprived him of the opportunity to produce his just and equitable share of the oil in the pool. "The migration of injected fluids or gases into underground formations does not end at the property line. Once injected, these fluids may cause extraterritorial effects that damage other individuals' mineral or surface rights." 1 B. Kramer & P. Martin, The Law of Pooling and

Unitization § 2.03[2][b] (3rd ed. 1990). "The fluid injected may migrate to a portion of the structure underlying the land of another and in the course of such migration displace valuable substances in such land." 1 H. Williams & C. Meyers, Oil and Gas Law § 204.5 (1990). We are not persuaded that the Commission must protect Hanson's correlative rights by risking damage to Petro-Hunt's oil production from the F-20 well. From the arguments presented, we are not persuaded that the Commission's order violates Hanson's correlative rights or results in waste.

Hanson contends that the Commission's rules of procedure have not afforded him a fair hearing because of its arbitrary and capricious disregard of Dr. Kelkar's opinion. Determining the credibility of witnesses is a function of the administrative agency. Gramling v. North Dakota Workmen's Compensation Bureau, 303 N.W.2d 323 (N.D. 1981). The expert witnesses testifying before the Commission presented two theories about the effect, if any, of injecting saltwater into the Madison formation through the F-22A well. The Commission accepted the theory advanced by Michael Pickering, rather than the theory advanced by Dr. Mohan Kelkar. "It is not arbitrary and unreasonable to accept one opinion over another." Barnes County v. Garrison Diversion Conservancy District, 312 N.W.2d 20, 27 (N.D. 1981). The contention is without merit.

For the reasons stated, the judgment is affirmed.

VandeWalle, Levine, Meschke and Gierke, JJ., concur.

Footnote:

1. Hanson has asserted that "no water is being disposed of in the Dakota Formation because of the prohibitively high cost."